

stanton

RM.402 Professional DJ Mixer



OWNER'S MANUAL

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Please read carefully before use of this product

failure to follow the instructions printed below may void warranty

- Follow all security advice printed on your mixer
- When removing the unit's AC plug from the power source, grasp and pull the plug, NEVER the cord itself!
- Avoid placing your mixer near heat sources, such as power amplifiers.
- When in use, place your mixer on a stable surface, away from vibration. Always use care when carrying your mixer. Impact, or heavy vibration may compromise the unit's mechanical integrity. The manufacturer is not responsible for damage resulting from an impact, or misuse.
- When in use, place your mixer away from sources of hum or noise, such as transformers, or electric motors.
- To prevent overheating, always provide your mixer with adequate ventilation air space.
- Avoid stepping on your mixer's AC cord. Repeated compression of the cord may lead to electrical shorting.
- To avoid damage due to AC voltage peaks, always disconnect your mixer from the power source during electrical storms.
- Your mixer contains no user-serviceable parts. The manufacturer is not responsible for any damage or personal injury resulting from unauthorized user-servicing or modifications. In addition, the warranty will be void if any unauthorized service by the user is detected. Always return you mixer to an authorized Stanton dealer for servicing.

Welcome

Congratulations on your choice of the Stanton RM.402 Professional DJ Mixer. You now own one of the most flexible DJ mixers ever designed. The rackmountable RM.402 offers up to three Microphone inputs, three Phono inputs and nine Line inputs—making it one of the most powerful DJ mixers around. And with Stanton’s smooth fader movement and rock-solid reliability, it’s the perfect mixer for mobile and club DJs alike.

Please take a moment to familiarize yourself with the RM.402 by reading through this Owner’s Manual. (And don’t worry—we’ll make it quick so you can start mixing!)

RM.402 Features

The RM.402 is an extremely versatile mixer with enough inputs to accommodate many DJ setups including multiple turntables, CD players and microphones. Below we list some of the RM.402’s most salient features (in case you forgot already!):

- 19” rackmountable DJ mixer with connections for multiple turntables, CD players and microphones
- 4-channel design with assignable crossfader for mixing a variety of sources
- Individual gain control per channel with clip LED for setting optimum levels
- Easy monitoring via PFL switches and headphone mix with Split Cue and Cue Pan functions.
- Fader Start buttons for controlling compatible CD players like Stanton S-Series
- Dual 7-band Master EQ for tweaking mixes to suit different venues
- Mic inputs 1 and 2 feature 2-band EQ and handy Talkover function
- Individual outputs and level control for Master, Zone and Booth

Making Connections

Are you ready to get on the 1's and 2's? Let's make sure you've made all the right connections...



Mic 2

Here you can connect a microphone using a 1/4-inch cable. If you have an XLR-type cable, use the Mic 1 input located on the front panel.

Channel

This channel offers two Line inputs for connecting CD/MD players, or the audio output of a DVD player or VCR. A Phono input is also provided for connecting a turntable.

Channel 2/3

For each channel, you can connect either two Line inputs or one Line input and a turntable, depending on the position of the push-switch. These channels also feature a Fader Start function. Connect the Fader Start cable (provided with any Fader Start equipped CD player) to the remote input on your CD player.

Channel 4

This channel provides connections for three Line inputs or two Line inputs and a microphone, depending on the position of the push-switch.

Making Connections

Outputs

Use the REC output to connect a stand-alone CD recorder, DAT recorder, or tape deck. Use the BOOTH output to connect directly to powered monitors or your monitor amp. The ZONE output can be used if you need separate level control for a particular area of your club, such as lounge vs. dance floor.

Master

These outputs are for connecting your main power amp, EQ, crossover, etc. Both RCA and 1/4-inch jacks are provided. Using the Master Output Trim control, you can adjust the overall level being sent from the outputs—great when an additional boost or cut is needed.

Power Adapter Inlet

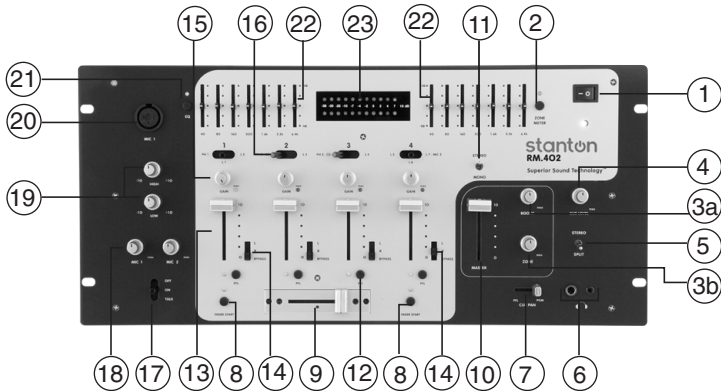
Connect the RM.402's power supply here. Screw to the right, unscrew to the left. You knew that, didn't you?

Ground Terminals

Connect the grounding cables from your turntables here to avoid hum.

Description of Functions

At this point, you're pretty much ready to start mixing. So if you're a know-it-all, or you're just one of those people who like to learn by trial-and-error, you are free to throw down. But if you wanna go for the gold and get your pilot's license, take a moment and learn what each of the RM.402's front-panel controls are about.



1. **Power switch:** Turns the power “On” or “Off”.
2. **Zone Meter switch:** Press this when you want the Output Level meter (23) to display the Zone output instead of the Master output.
- 3a. **Zone Level knob:** Adjusts the level being sent to the Zone outputs (i.e. monitors).
- 3b. **Booth Level knob:** Adjusts the level being sent to the Booth outputs (i.e. monitors).
4. **Cue Level knob:** Adjusts the cue level being sent to the Headphone outputs. Keep this at a reasonable level to avoid hearing loss.
5. **Cue Stereo/ Split toggle switch:** Select whether you prefer to hear the Cue mix and Master output in stereo, or split with the Cue mix on one side and the Master on the other.

Description of Functions

6. **Headphone outputs:** Connect up to two pairs of stereo headphones using 1/4-inch and 1/8-inch jacks.
7. **Cue Pan slider:** This adjusts the relative headphone balance between the Cue mix (PFL) and Master output (PGM).
8. **Fader Start switch:** Lets you automatically start a CD player from the cue point by moving the crossfader (requires a compatible CD player like the Stanton S-Series).
9. **Crossfader:** Creates a gradual fade between two channels, as determined by the Crossfader Source selectors (14). Essential for scratching and smooth house mixing.
10. **Master fader:** Adjusts the overall level of the Master output signal.
11. **Master Stereo/Mono toggle switch:** Selects whether the Master output will be stereo or summed to mono.
12. **PFL switch:** Push this to assign the channel to the Cue mix in headphones. (Pop quiz: Do you know what “PFL” stands for? Answer: “Pre-Fader Level.” In other words, the Channel fader does not affect the level you hear in the headphone cue mix.)
13. **Channel fader:** Controls the input channel level.
14. **Crossfader Source selectors:** These select whether the input channel is assigned to the left side (A) or right side (B) of the crossfader. Select “BYPASS” if you don’t want the channel assigned to the crossfader at all.
15. **Input Gain knobs:** Use these to adjust the level of inputs. For optimum signal-to-noise, raise the knob until the “max” LED lights occasionally (usually around the 2 o’clock position).

Description of Functions

16. **Input Selector switches:** Use these to choose between the Phono, Line and Mic inputs.
17. **Talkover switch:** Switch this to the “ON” position to enable Microphones 1 and 2. When moved to the “Talkover” position, the music is lowered by a preset amount when the mic is in use.
18. **Mic Level knobs:** Use these to adjust the levels for Microphones 1 and 2. Note that the Talkover switch must be set to “ON” to hear the microphones.
19. **Microphone EQ knobs:** Adjust the Hi and Low frequencies of Mic 1 and 2 by +/- 12dB.
20. **Mic 1 input:** Connect a microphone here using an XLR cable.
21. **EQ On switch:** Enables or disables the dual 7-band equalizer.
22. **Equalizer:** A dual 7-band EQ for the Master output. Use this to “tune” your mix to different venues, or to adjust the overall tonality of your mixes.
23. **Output Level meter:** Displays the overall signal level of the Master output. Can also display levels for the Zone output when the Zone Meter switch (2) is enabled.

SUPERIOR SOUND TECHNOLOGY

The audio quality of the RM.402 is nothing short of revolutionary for DJ mixers in its price class. The RM.402 was designed by Stanton’s new product development team, seasoned audio professionals who have designed world class professional recording studio and broadcast mixers and product managers who are working DJs and work closely with some of the world’s most respected DJs. They have taken their knowledge and experience to create the RM.402, a DJ mixer with superior audio quality and unprecedented value. Come hear the difference!

Application Example

This is a typical setup you'll find in many nightclubs: 2 turntables, 2 CD players, plus a microphone for the DJ. Here's how you would set up your equipment with the RM.402:

1. Be sure all equipment is powered "OFF" and all of the RM.402's Channel faders and Level knobs are at minimum volume.
2. Connect the turntables to the Phono inputs of Channels 1 and 2. Be sure the rear-panel toggle switch for Channel 2 is set to "PH2" or you won't hear anything. To avoid hum, don't forget to connect the ground wires to the grounding terminals.
3. Connect the CD players to the Line 4 and 5 inputs of Channels 3 and 4.
4. Depending on the type of cable you have, connect your microphone to the Mic 1 or Mic 2 input.
5. Connect the Master Output jacks to the club's power amp, EQ or crossover. Then connect your monitor amp to the Booth output. If you have a separate amp for a particular area of the club, connect this amp to the Zone outputs.
6. Set the Input Selectors on the front panel to the appropriate inputs for each channel.
7. Power everything up and carefully adjust the input levels using the Input Gain knobs and Mic Level knob.
8. If you want to use the crossfader, set Channels 1 and 3 to "A" and Channels 2 and 4 to "B". Otherwise, set them all to "Bypass".
9. If your CD players support Fader Start, connect the mini-cables and set the Fader Start switches to "ON".
10. Slowly raise the Channel faders, Master fader, Booth level, Zone level and Mic level as appropriate and start mixing!

Technical Specifications

Frequency Response	20 Hz to 20 kHz +1 dB
THD+N (Line)	> 0.005 % at 1 kHz
Signal to Noise Ratio (ref: max level)	> 109 dB (main signal path)
Noise	-98 dBV (Line input to any output)
Crosstalk (Line to Line, Phono to Line, Line to Phono)	> -90 dB
Fader Kill	> -90 dB
Microphone EQ	Hi, Low +12 dB
Graphic EQ (7 band stereo)	40 Hz, 80 Hz, 160 Hz, 500 Hz, 1.6 kHz, 3.2 kHz, 6.4 kHz + 10 dB
Line Inputs	7(RCA) , 1(1/4" Balanced) -10 dBV / >10 kOhm
Phono Inputs	2 (RCA), -50 dBV / 47 kOhm
Phono / CD	2 (RCA), -50 dBV (Phono) -10 dBV (Line) / 47 kOhm
Mic Inputs	2 (1/4"), 1 (XLR) -50 dBV / 2.4 kOhm
Master Outputs	2 (1/4" Balanced/ (RCA) unbalanced, +4 dBu balanced / -10 dBV unbalanced
Zone Output	2 (RCA) unbalanced / -10 dBV
Booth Output	2 (RCA) unbalanced / -10 dBV
Record Output	2 (RCA) unbalanced / -10 dBV
Headphone Output	1 (1/4 inch), 1 (1/8 inch) greater than 32 Ohm load
Dimensions (LxWxD)	18.9 in. x 8.66 in. x 4.72 in. (48 cm. x 22 cm. x 12 cm.)
Weight	4.5 kg (9.9 lbs)

Troubleshooting

Problem / Symptom	Possible Cause/ Solution
No Sound	Is the power on? Check the power switch. Make sure the channels are assigned properly to the crossfaders. Make sure INPUT GAIN, is turned up and output level control is turned up. Depending on the input, check the rear panel selector switches. Check the top panel channel selector switches.
No Sound- Master Output (Booth and Zone are OK)	Make sure that MASTER TRIM on the rear panel is turned up.
No Sound Headphones	Do the headphones work with the CUE pan in the PROGRAM position but not PFL? If so, make sure that the channel PFL switches are engaged. Check the CUE LEVEL control.
Signal level is low even with the faders and input level controls turned up.	Check to make sure the talkback switch is NOT engaged on the microphone input. Check the EQ sliders.
Mixer sounds noisy	Check to make sure that the microphone levels are turned all of the way down if a microphone is not being used.
Microphone doesn't work	Is the Mic gain turned up? Does the microphone require phantom power? This mixer does not provide microphone phantom power.
Sound is distorted- Line or CD input	In general, turn down the INPUT GAIN CONTROL. The input signal may be too loud for the input gain control setting that you were using. Is the EQ on? Turn off the EQ. If the distortion goes away, then you need to turn down the INPUT GAIN CONTROL.

Troubleshooting

Problem / Symptom	Possible Cause/ Solution
Sound is distorted Phono Input	Only plug turntables into this input, do not plug in CD players or other Line Level sources. Turn down the INPUT GAIN CONTROL
I hear hum.	Make sure you are using good shielded audio cables. Some less expensive audio cables can be susceptible to hum and interference. Keep your audio cables away from AC power cables and AC transformers. Make sure the mixer is not mounted too close to high power amplifiers or lighting equipment power supplies or ballasts. Make sure your turntables are properly grounded.
I hear feedback	If you are using a microphone, make sure that you are not too close to the speakers or headphones. If you hear feedback on the phono input, then the turntable may be mounted too close to the speakers. Also, make sure the turntable base is placed on a surface that does not vibrate or resonate easily when the speakers are turned up loudly.